

Natural Parameters FAQ

The following topics are covered:

- How many parameters can be entered dynamically?
 - How long may a parameter string be?
 - What is the maximum length of a single parameter string?
 - Natural parameters can be entered in various ways, at various times. Which parameter value is the actual valid value?
 - In what sequence are CPRMIN and PARM= processed?
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How many parameters can be entered dynamically?

The number of parameters that can be entered dynamically is basically unlimited. What is important to know is that in most cases the parameters may be entered multiple times, but only the last value is transferred to Natural.

For instance, the parameter ESIZE can be entered more than once, but only the last value is accepted.

Other parameters are accumulated, such as the LFILE parameter. Each new LFILE establishes a new entry in the logical file assignment.

How long may a parameter string be?

The length of a parameter string may not exceed 32 KB. The only parameter that may become very large is the STACK parameter. This parameter is part of the extended buffer which is defined by the parameter ESIZE. So the STACK parameter may not exceed the size of the ESIZE buffer.

Another limitation that previously existed was that the length of a parameter string was limited by the calling system (for example, in batch mode, a limit of 250 bytes when parameters are specified using the PARM option of the EXEC JCL statement; in TSO, a limit of what can be entered on the available screen). This limitation has been eliminated by the introduction of the CMPRMIN dataset. The parameter values available in this dataset are read first, and the real dynamic parameters are appended to the end of the string.

What is the maximum length of a single parameter string?

This question is only relevant for the STACK parameter. Only with this parameter it is possible to enter strings which may be quite long - up to 250 bytes.

Natural parameters can be entered in various ways, at various times. Which parameter value is the actual valid value?

All Natural parameters can be specified statically in the NATPARM parameter module or dynamically. The only exception is the CSTATIC parameter, since it has to define external references for use by the linkage editor. Which Natural parameter takes precedence is determined by the processing sequence shown below:

1. All default values are read from the assembled parameter module.
2. When the PROFILE parameter has been specified in the NATPARM parameter module or dynamically, Natural tries to read it first. This parameter was available only for an Adabas system file in Natural 2.2, but has been extended to VSAM system files as well as of Natural 2.3.
3. When dynamic parameters are allowed, then they are read and processed. Depending on the parameters specified, a complete overwrite can happen (parameter: PARM), a value can be replaced (parameter: FNAT), and a value can be added (parameter: LFILE).

Any error in the dynamic parameter processing causes the appropriate error message number to be stacked, and processing is resumed with the next parameter.

In what sequence are CMPRMIN and PARM= processed?

As the parameters of the JCL statement typically are seen as part of the job before it is submitted, these parameter values are processed after the dataset values have been read. So these parameters can overwrite definitions made in the CMPRMIN dataset.

The dataset CMPRMIN is not supported in a CMS environment.

Where can I find more information about parameter usage?

General information about parameter usage can be found in the following document:

Natural Operations for UNIX/OpenVMS documentation, section Profile Parameters.